

	<b>L #</b>	<b>Hits</b>	<b>Search Text</b>	<b>DBs</b>	<b>Time Stamp</b>
1	L1	248	carboxylesterase\$1	USPAT; US-PGPUB	2003/02/27 15:37
2	L2	6434	cpt-11 or (cpt adj "11") or apc	USPAT; US-PGPUB	2003/02/27 15:38
3	L3	1269	camptothecin	USPAT; US-PGPUB	2003/02/27 15:38
4	L4	49	1 same (2 or 3)	USPAT; US-PGPUB	2003/02/27 15:38

PGPUB-DOCUMENT-NUMBER: 20030036114

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030036114 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: February 20, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Hillsborough	CA	US	
Gurney, Austin L.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Stewart, Timothy A.	San Francisco	CA	US	
Watanabe, Colin K.	Moraga	CA	US	
Wood, William I.	Hillsborough	CA	US	
Zhang, Zemin	Foster City	CA	US	

APPL-NO: 10/ 035719

DATE FILED: December 26, 2001

RELATED-US-APPL-DATA:

child 10035719 A1 20011226 parent continuation-of 09931836 20010816 US PENDING  
non-provisional-of-provisional 60085579 19980515 US  
non-provisional-of-provisional 60112514 19981215 US  
non-provisional-of-provisional 60113300 19981222 US  
non-provisional-of-provisional 60113430 19981223 US  
non-provisional-of-provisional 60113605 19981223 US  
non-provisional-of-provisional 60113621 19981223 US  
non-provisional-of-provisional 60114140 19981223 US  
non-provisional-of-provisional 60115552 19990112 US  
non-provisional-of-provisional 60116843 19990122 US  
non-provisional-of-provisional 60125774 19990323 US  
non-provisional-of-provisional 60125778 19990323 US  
non-provisional-of-provisional 60125826 19990324 US  
non-provisional-of-provisional 60127035 19990331 US  
non-provisional-of-provisional 60127706 19990405 US  
non-provisional-of-provisional 60129122 19990413 US  
non-provisional-of-provisional 60130359 19990421 US  
non-provisional-of-provisional 60131270 19990427 US  
non-provisional-of-provisional 60131272 19990427 US  
non-provisional-of-provisional 60131291 19990427 US  
non-provisional-of-provisional 60132371 19990504 US

non-provisional-of-provisional 60132379 19990504 US  
non-provisional-of-provisional 60132383 19990504 US  
non-provisional-of-provisional 60135750 19990525 US  
non-provisional-of-provisional 60138166 19990608 US  
non-provisional-of-provisional 60144791 19990720 US  
non-provisional-of-provisional 60146970 19990803 US  
non-provisional-of-provisional 60162506 19991029 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/30720	1999US-PCT/US99/30720	December 22, 1999
US	PCT/US00/05601	2000US-PCT/US00/05601	March 1, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/23522	2000US-PCT/US00/23522	August 23, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 435/69.1,435/183 ,435/320.1 ,435/325 ,435/7.1 ,536/23.2

ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20030036114 A1

Summary of Invention Paragraph - BSTX:

[0020] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the

controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver **carboxylesterases** have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a **carboxylesterase** in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the **CPT-11** cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver **carboxylesterase** inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20030032061

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030032061 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: February 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Hillsborough	CA	US	
Gurney, Austin L.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Stewart, Timothy A.	San Francisco	CA	US	
Watanabe, Colin K.	Moraga	CA	US	
Wood, William I.	Hillsborough	CA	US	
Zhang, Zemin	Foster City	CA	US	

APPL-NO: 10/ 036214

DATE FILED: December 26, 2001

RELATED-US-APPL-DATA:

child 10036214 A1 20011226 parent continuation-of 09931836 20010816 US PENDING  
non-provisional-of-provisional 60085579 19980515 US  
non-provisional-of-provisional 60112514 19981215 US  
non-provisional-of-provisional 60113300 19981222 US  
non-provisional-of-provisional 60113430 19981223 US  
non-provisional-of-provisional 60113605 19981223 US  
non-provisional-of-provisional 60113621 19981223 US  
non-provisional-of-provisional 60114140 19981223 US  
non-provisional-of-provisional 60115552 19990112 US  
non-provisional-of-provisional 60116843 19990122 US  
non-provisional-of-provisional 60125774 19990323 US  
non-provisional-of-provisional 60125778 19990323 US  
non-provisional-of-provisional 60125826 19990324 US  
non-provisional-of-provisional 60127035 19990331 US  
non-provisional-of-provisional 60127706 19990405 US  
non-provisional-of-provisional 60129122 19990413 US  
non-provisional-of-provisional 60130359 19990421 US  
non-provisional-of-provisional 60131270 19990427 US  
non-provisional-of-provisional 60131272 19990427 US  
non-provisional-of-provisional 60131291 19990427 US  
non-provisional-of-provisional 60132371 19990504 US

non-provisional-of-provisional 60132379 19990504 US  
non-provisional-of-provisional 60132383 19990504 US  
non-provisional-of-provisional 60135750 19990525 US  
non-provisional-of-provisional 60138166 19990608 US  
non-provisional-of-provisional 60144791 19990720 US  
non-provisional-of-provisional 60146970 19990803 US  
non-provisional-of-provisional 60162506 19991029 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/30720	1999US-PCT/US99/30720	December 22, 1999
US	PCT/US00/05601	2000US-PCT/US00/05601	March 1, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/23522	2000US-PCT/US00/23522	August 23, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 435/7.1,435/183 ,435/320.1 ,435/325 ,435/69.1 ,536/23.2

ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20030032061 A1

Summary of Invention Paragraph - BSTX:

[0020] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the

controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver **carboxylesterases** have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a **carboxylesterase** in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the **CPT-11** cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver **carboxylesterase** inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20030031681

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030031681 A1

TITLE: Combined growth factor-deleted and thymidine kinase-deleted vaccinia virus vector

PUBLICATION-DATE: February 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
McCart, J. Andrea	Toronto	PA	CA	
Bartlett, David L.	Pittsburgh	MD	US	
Moss, Bernard	Bethesda		US	

APPL-NO: 09/ 991721

DATE FILED: November 13, 2001

RELATED-US-APPL-DATA:

non-provisional-of-provisional 60137126 19990528 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/USOO/14679	2000US-PCT/USOO/14679	May 26, 2000

US-CL-CURRENT: 424/186.1,435/235.1 ,435/456

ABSTRACT:

A composition of matter comprising a vaccinia virus expression vector with a negative thymidine kinase phenotype and a negative vaccinia virus growth factor phenotype.

RELATED APPLICATIONS

[0001] This application claims the benefit of priority from PCT/US00/14679, filed May 26, 2000, which claims the benefit of priority from U.S. Provisional Patent Application No. 60/137,126, filed May 28, 1999, each of which is hereby incorporated by reference in their entirety.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:



## Detail Description Paragraph - DETX:

[0064] Several other suicide gene systems have been recently described. Thymidine phosphorylase, which catalyzes the reversible phosphorolytic cleavage of thymidine, deoxyuridine and their analogs, has been used to convert the prodrug 5'-deoxy-5-fluorouridine to 5-FU. Cytosine arabinoside (ara-C) requires phosphorylation by deoxycytidine kinase (dCK) to form its active metabolite. Delivery of dCK to glioma cells sensitized them to treatment by ara-C. Overexpression of a rabbit carboxylesterase was shown to sensitize human cells to 7-ethyl-10-[4-(1-piperidino)-1-piperidino]-carbonyloxycamptothecin (CPT-11) by its conversion to an active metabolite (SN38). Both .beta.-glucosidase and the plant equivalent linamarase have been shown to hydrolyse amygdalin and linamarase respectively to cyanide. This leads to tumor specific toxicity when delivered via antibody-targeting or retroviral transduction, with no noted systemic toxicity.

## Detail Description Table CWU - DETL:

2TABLE 2	Enzyme/Prodrug Systems	ENZYME	PRODRUG	ACTIVE DRUG	Herpes Simplex
	Virus Gancyclovir	Gancyclovir triphosphate	thymidine kinase	Varicella Zoster	
	Virus (E)-5-(2-bromovinyl)-2'-	BVDU triphosphate	thymidine kinase		
	deoxyuridine (BVDU)	Cytosine deaminase	5-fluorocytosine	5-fluorouracil	
	Purine nucleoside 6-methylpurine	deoxyriboside	6-methylpurine	phosphorylase	
	.beta.-lactamase	7-(4-carboxybutanamido)-	phenylenediamine	mustard	
	cephalosporin	mustard	Carboxypeptidase G2	4-[(2-chloroethyl)(2-	
	benzoyl-L-glutamic acid	acid (CJS11)	(CMDA)	Cytochrome P450-2B1	
	Cyclophosphamide/ifosfamide	acrolein + phosphoramidate	mustard	E. coli	
	nitroreductase CB1954	(S-aziridin-yl-2-4-	5-aziridin-1-yl-4-		
	dinitrobenzamide)	hydroxylamino-2-	nitrobenzamide	Xanthine-guanine	
	6-thioxanthine	6-thioxanthine monophosphate	phosphoribosyl-transferase		
	.beta.-glucuronidase	epirubicin-glucoronide	Epirubicin	Thymidine	
	phosphorylase	5'-deoxy-5-fluorouridine	5-fluorouracil	Deoxycytidine kinase	
	Cytosine arabinoside	Cytosine ababinoside	monophosphate	<u>Carboxylesterase</u>	
	7-ethyl-10-[4-(1-piperidino)-1-	7-theyl-10-	piperidino]	hydroxycamptothecin	
	(SN-38)	carbonyloxycamptothecin	( <u>CPT-11</u> )	Linamarase/.beta.-glucosidase	
	Linamarin/Amygdalin	Cyanide	Carboxypeptidase A	Methotrexate-phenylalanine	
	Methotrexate	Cytochrome P450-4B1	2-aminoanthracene, 4-	unknown alkylating	
	agents	ipomeanol			

PGPUB-DOCUMENT-NUMBER: 20030027249

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030027249 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: February 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Hillsborough	CA	US	
Gurney, Austin L.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Stewart, Timothy A.	San Francisco	CA	US	
Watanabe, Colin K.	Moraga	CA	US	
Wood, William I.	Hillsborough	CA	US	
Zhang, Zemin	Foster City	CA	US	

APPL-NO: 09/ 931836

DATE FILED: August 16, 2001

RELATED-US-APPL-DATA:

child 09931836 A1 20010816 parent continuation-of 09311832 19990514 US PENDING  
child 09931836 A1 20010816 parent continuation-of 09380142 19990825 US  
ABANDONED child 09931836 A1 20010816 parent continuation-of 09644848 20000822  
US PENDING child 09931836 A1 20010816 parent continuation-of 09747259 20001220  
US PENDING child 09931836 A1 20010816 parent continuation-of 09816744 20010322  
US PENDING child 09931836 A1 20010816 parent continuation-of 09854208 20010510  
US PENDING child 09931836 A1 20010816 parent continuation-of 09854280 20010510  
US PENDING child 09931836 A1 20010816 parent continuation-of 09874503 20010605  
US PENDING child 09931836 A1 20010816 parent continuation-of 09869599 20010629  
US ABANDONED child 09931836 A1 20010816 parent continuation-of 09908827  
20010718 US PENDING non-provisional-of-provisional 60085579 19980515 US  
non-provisional-of-provisional 60112514 19981215 US  
non-provisional-of-provisional 60113300 19981222 US  
non-provisional-of-provisional 60113430 19981223 US  
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non-provisional-of-provisional 60115552 19990112 US  
non-provisional-of-provisional 60116843 19990122 US  
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non-provisional-of-provisional 60125826 19990324 US  
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 non-provisional-of-provisional 60135750 19990525 US  
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 non-provisional-of-provisional 60146970 19990803 US  
 non-provisional-of-provisional 60162506 19991029 US

# FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/30720	1999US-PCT/US99/30720	December 22, 1999
US	PCT/US00/05601	2000US-PCT/US00/05601	March 1, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
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US	PCT/US00/23522	2000US-PCT/US00/23522	August 23, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 435/69.1,435/183 ,435/320.1 ,435/325 ,530/350 ,530/388.1  
 ,536/23.2

## ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20030027249 A1

Summary of Invention Paragraph - BSTX:

[0020] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver carboxylesterases have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a carboxylesterase in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the CPT-11 cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver carboxylesterase inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20030026764

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030026764 A1

TITLE: Polymeric delivery systems

PUBLICATION-DATE: February 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Griffiths, Gary L.	Morristown	NJ	US	

APPL-NO: 10/ 209592

DATE FILED: July 31, 2002

RELATED-US-APPL-DATA:

non-provisional-of-provisional 60308605 20010731 US

US-CL-CURRENT: 424/9.34,424/1.49

ABSTRACT:

The present invention relates to a method of targeting an agent towards a targeting site in a tissue comprising administering a multi-specific antibody or antibody fragment comprising a targeting arm and a capture arm that binds to a polymer conjugate, and administering a polymer conjugate to the tissue. The present invention also relates to a kit for targeting a target site within a comprising a multi-specific antibody or antibody fragment comprising a targeting arm and a capture arm that binds to a polymer conjugate, and a polymer conjugate.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20030026764 A1

Detail Description Paragraph - DETX:

[0071] The prodrug CPT-11 (irinotecan) is converted in vivo by carboxylesterase to the active metabolite SN-38. Although SN-38 is a highly effective anti-tumor agent, therapeutic doses can not be administered to subjects due to its toxicity. One application of the invention, therefore, is to target such

therapies to the tumor site using a mAb specific for a tumor-associated antigen and a hapten (e.g. di-DTPA) followed by injection of a di-DTPA-carboxylesterase-polymer conjugate. Once a suitable tumor-to-background localization ratio has been achieved, the **CPT-11** is given and the tumor-localized carboxylesterase serves to convert **CPT-11** to SN-38 at the tumor. Due to its poor solubility, the active SN-38 will remain in the vicinity of the tumor and, consequently, will exert an effect on adjacent tumor cells that are negative for the antigen being targeted. This is a further advantage of the method. Modified forms of carboxylesterases have been described and are within the scope of the invention. See, e.g., Potter et al., Cancer Res., 58:2646-2651 and 3627-3632, 1998.

#### Detail Description Paragraph - DETX:

[0072] Etoposide is a widely used cancer drug that is detoxified to a major extent by formation of its glucuronide and is within the scope of the invention. See, e.g., Hande et al., Cancer Res., 48: 1829-1834, 1988. Glucuronide conjugates can be prepared from cytotoxic drugs and can be injected as therapeutics for tumors pretargeted with mAb-glucuronidase conjugates. See, e.g., Wang et al., Cancer Res., 52:4484-4491, 1992. Accordingly, such conjugates also can be used with the pretargeting approach described here. Similarly, designed prodrugs based on derivatives of daunomycin and doxorubicin have been described for use with carboxylesterases and glucuronidases. See, e.g., Bakina et al., J. Med Chem., 40:4013-4018, 1997. Other examples of prodrug/enzyme pairs that can be used within the present invention include, but are not limited to, glucuronide prodrugs of hydroxy derivatives of phenol mustards and beta-glucuronidase; phenol mustards or **CPT-11** and carboxypeptidase; methotrexate-substituted alpha-amino acids and carboxypeptidase A; penicillin or cephalosporin conjugates of drugs such as 6-mercaptopurine and doxorubicin and beta-lactamase; etoposide phosphate and alkaline phosphatase.

PGPUB-DOCUMENT-NUMBER: 20030008348

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: **US 20030008348 A1**

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: January 9, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Hillsborough	CA	US	
Gurney, Austin L.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Stewart, Timothy A.	San Francisco	CA	US	
Watanabe, Colin K.	Moraga	CA	US	
Wood, William I.	Hillsborough	CA	US	
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APPL-NO: 10/ 035855

DATE FILED: December 26, 2001

RELATED-US-APPL-DATA:

child 10035855 A1 20011226 parent continuation-of 09931836 20010816 US PENDING  
non-provisional-of-provisional 60085579 19980515 US  
non-provisional-of-provisional 60112514 19981215 US  
non-provisional-of-provisional 60113300 19981222 US  
non-provisional-of-provisional 60113430 19981223 US  
non-provisional-of-provisional 60113605 19981223 US  
non-provisional-of-provisional 60113621 19981223 US  
non-provisional-of-provisional 60114140 19981223 US  
non-provisional-of-provisional 60115552 19990112 US  
non-provisional-of-provisional 60116843 19990122 US  
non-provisional-of-provisional 60125774 19990323 US  
non-provisional-of-provisional 60125778 19990323 US  
non-provisional-of-provisional 60125826 19990324 US  
non-provisional-of-provisional 60127035 19990331 US  
non-provisional-of-provisional 60127706 19990405 US  
non-provisional-of-provisional 60129122 19990413 US  
non-provisional-of-provisional 60130359 19990421 US  
non-provisional-of-provisional 60131270 19990427 US  
non-provisional-of-provisional 60131272 19990427 US  
non-provisional-of-provisional 60131291 19990427 US  
non-provisional-of-provisional 60132371 19990504 US

non-provisional-of-provisional 60132379 19990504 US  
 non-provisional-of-provisional 60132383 19990504 US  
 non-provisional-of-provisional 60135750 19990525 US  
 non-provisional-of-provisional 60138166 19990608 US  
 non-provisional-of-provisional 60144791 19990720 US  
 non-provisional-of-provisional 60146970 19990803 US  
 non-provisional-of-provisional 60162506 19991029 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/30720	1999US-PCT/US99/30720	December 22, 1999
US	PCT/US00/05601	2000US-PCT/US00/05601	March 1, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/23522	2000US-PCT/US00/23522	August 23, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 435/69.1,435/183 ,435/320.1 ,435/325 ,530/350 ,530/388.1  
 ,536/23.2

ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20030008348 A1

Summary of Invention Paragraph - BSTX:

[0020] Enzymatic proteins play important roles in the chemical reactions



involved in the digestion of foods, the biosynthesis of macromolecules, the controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver **carboxylesterases** have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a **carboxylesterase** in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the **CPT-11** cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver **carboxylesterase** inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20030004102

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030004102 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: January 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ashkenazi, Avi J.	San Mateo	CA	US	
Baker, Kevin P.	Darnestown	MD	US	
Botstein, David	Belmont	CA	US	
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Ferrara, Napoleone	San Francisco	CA	US	
Filvaroff, Ellen	San Francisco	CA	US	
Fong, Sherman	Alameda	CA	US	
Gao, Wei-Qiang	Palo Alto	CA	US	
Gerber, Hanspeter	San Francisco	CA	US	
Gerritsen, Mary E.	San Mateo	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Burlingame	CA	US	
Grimaldi, J.	San Francisco	CA	US	
Christopher	Belmont	CA	US	
Gurney, Austin L.	San Francisco	CA	US	
Hillan, Kenneth J.	Lafayette	CA	US	
Kljavin, Ivar J.	San Francisco	CA	US	
Kuo, Sophia S.	Hillsborough	CA	US	
Napier, Mary A.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Paoni, Nicholas F.	San Francisco	CA	US	
Roy, Margaret Ann	Oakland	CA	US	
Shelton, David L.	San Francisco	CA	US	
Stewart, Timothy A.	Orinda	CA	US	
Tumas, Daniel	Half Moon Bay	CA	US	
Williams, P. Mickey	Hillsborough	CA	US	
Wood, William I.				

APPL-NO: 09/ 978189

DATE FILED: October 15, 2001

RELATED-US-APPL-DATA:

child 09978189 A1 20011015 parent continuation-of 09040220 19980317 US PENDING  
child 09978189 A1 20011015 parent continuation-of 09105413 19980626 US PENDING  
child 09978189 A1 20011015 parent continuation-of 09168978 19981007 US PENDING

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 non-provisional-of-provisional 60079786 19980327 US  
 non-provisional-of-provisional 60079920 19980330 US  
 non-provisional-of-provisional 60079923 19980330 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US98/21141	1998US-PCT/US98/21141	October 7, 1998
US	PCT/US98/24855	1998US-PCT/US98/24855	November 20, 1998

US	PCT/US99/00106	1999US-PCT/US99/00106	January 5, 1999
US	PCT/US99/05028	1999US-PCT/US99/05028	March 8, 1999
US	PCT/US99/05190	1999US-PCT/US99/05190	March 10, 1999
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/12252	1999US-PCT/US99/12252	June 2, 1999
US	PCT/US99/28313	1999US-PCT/US99/28313	November 30, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/28565	1999US-PCT/US99/28565	December 2, 1999
US	PCT/US99/30095	1999US-PCT/US99/30095	December 16, 1999
US	PCT/US99/31243	1999US-PCT/US99/31243	December 30, 1999
US	PCT/US99/31274	1999US-PCT/US99/31274	December 30, 1999
US	PCT/US00/00219	2000US-PCT/US00/00219	January 5, 2000
US	PCT/US00/00277	2000US-PCT/US00/00277	January 6, 2000
US	PCT/US00/00376	2000US-PCT/US00/00376	January 6, 2000
US	PCT/US00/03565	2000US-PCT/US00/03565	February 11, 2000
US	PCT/US00/04341	2000US-PCT/US00/04341	February 18, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/07532	2000US-PCT/US00/07532	March 21, 2000
US	PCT/US00/05004	2000US-PCT/US00/05004	February 24, 2000
US	PCT/US00/06319	2000US-PCT/US00/06319	March 10, 2000
US	PCT/US00/08439	2000US-PCT/US00/08439	March 30, 2000
US	PCT/US00/13705	2000US-PCT/US00/13705	May 17, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/14941	2000US-PCT/US00/14941	May 30, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/20710	2000US-PCT/US00/20710	July 28, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/09552	2001US-PCT/US01/09552	March 22, 2001
US	PCT/US01/17092	2001US-PCT/US01/17092	May 25, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/30873	2000US-PCT/US00/30873	November 10, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/07532	2000US-PCT/US00/07532	March 21, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/05601	2000US-PCT/US00/05601	March 1, 2000
US	PCT/US00/04341	2000US-PCT/US00/04341	February 18, 2000
US	PCT/US99/31274	1999US-PCT/US99/31274	December 30, 1999
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999

US-CL-CURRENT: 514/12,435/183 ,435/320.1 ,435/325 ,435/69.1 ,536/23.2

ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20030004102 A1

Summary of Invention Paragraph - BSTX:

[0119] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver carboxylesterases have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al, report that stable expression of the cDNA encoding a carboxylesterase in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the CPT-11 cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver carboxylesterase inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20020193391

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020193391 A1

TITLE: Methods of administering camptothecin compounds for the treatment of cancer with reduced side effects

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bouscarel, Bernard	Arlington	VA	US	
Kobayashi, K.	Urawa-City		JP	

APPL-NO: 10/ 171691

DATE FILED: June 17, 2002

RELATED-US-APPL-DATA:

child 10171691 A1 20020617 parent division-of 09534084 20000323 US GRANTED  
parent-patent 6407117 US non-provisional-of-provisional 60089781 19980618 US

US-CL-CURRENT: 514/283

ABSTRACT:

Methods of administering camptothecin compounds such as irinotecan hydrochloride to reduce a diarrhea side effect and methods of treating cancer and AIDs with camptothecin compounds including administering the camptothecin compounds while maintaining the intestinal lumen and the bile at an alkaline pH.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20020193391 A1

Summary of Invention Paragraph - BSTX:

[0006] From several reports, it is considered that major metabolic pathways in human are as follows; CPT-11 is hydrolyzed by carboxylesterase of mainly liver origin to the active metabolite, 7-ethyl-10-hydroxy-camptothecin (SN-38). Some of SN-38 undergoes subsequent conjugation by the hepatic enzyme,

UDP-glucuronyltransferase, to SN-38 .beta.-glucuronide (SN-38-Glu), and is excreted into bile along with the other components, **CPT-11** and SN-38 (13, 14). The three compounds are believed to be reabsorbed by intestinal cells to enter the enterohepatic circulation. Recently, it has been found that hepatic cytochrome P-450 3A enzymes metabolize **CPT-11** to 7-ethyl-10-[4-N-(5-amino-pentanoic acid)-1-piperidino]carbonyloxycamptothecin, which has 500-fold weaker antitumor activity than SN-38 (Rivory et al., 1996b; Haaz et al., 1997).

**CPT-11**, SN-38 and SN38-Glu have an .alpha.-hydroxy-3-lactone ring, which undergoes reversible hydrolysis at a rate which is mainly pH-dependent (Fassberg et al., 1992). At physiological pH and higher, the lactone form is unstable and the equilibrium favors hydrolysis to open the lactone ring and yield the carboxylate form. Under acidic conditions, lactone-carboxylate interconversion is shifted toward the lactone form. **CPT-11**, SN-38 and SN38-Glu are excreted into bile and along with it are released into the small intestinal lumen (Atsumi et al., 1991; Lokiec et al., 1995; Chu et al., 1997a, b). Furthermore, although minor (Atsumi et al 1995), an additional pathway involves direct transport of **CPT-11** and its metabolites from serum to lumen across the intestinal epithelial cells. Once in the intestine, SN38-Glu can be deconjugated in the cecum and colon to SN-38 by bacterial .beta.-glucuronidase (Takatsuna et al., 1996). **CPT-11**, SN-38 and SN38-Glu are believed to be reabsorbed to a certain extent by intestinal cells and to enter the enterohepatic circulation.

#### Detail Description Paragraph - DETX:

[0120] (13)Rivory L P, Bowles M R, Robert J. Pond S M. Conversion of irinotecan (**CPT-11**) to its active metabolite, 7-ethyl-10-hydroxycamptothecin (SN-38), by human liver carboxylesterase. Biochemical Pharmacol 1996;52:1103-11.

#### Detail Description Paragraph - DETX:

[0168] RIVORY, L. P., BOWLES, M. R., ROBERT, J., POND, S. M., Conversion of irinotecan (**CPT-11**) to its active metabolite, 7-ethyl-10-hydroxycamptothecin (SN-38), by human liver carboxylesterase. Biochemical Pharmacol., 52, 1103-1111 (1996a).

PGPUB-DOCUMENT-NUMBER: 20020192706

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020192706 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ashkenazi, Avi J.	San Mateo	CA	US	
Baker, Kevin P.	Darnestown	MD	US	
Botstein, David	Belmont	CA	US	
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Ferrara, Napoleone	San Francisco	CA	US	
Filvaroff, Ellen	San Francisco	CA	US	
Fong, Sherman	Alameda	CA	US	
Gao, Wei-Qiang	Palo Alto	CA	US	
Gerber, Hanspeter	San Francisco	CA	US	
Gerritsen, Mary E.	San Mateo	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Burlingame	CA	US	
Grimaldi, J.	San Francisco	CA	US	
Christopher	Belmont	CA	US	
Gurney, Austin L.	San Francisco	CA	US	
Hillan, Kenneth J.	Lafayette	CA	US	
Kljavin, Ivar J.	San Francisco	CA	US	
Kuo, Sophia S.	Hillsborough	CA	US	
Napier, Mary A.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Paoni, Nicholas F.	San Francisco	CA	US	
Roy, Margaret Ann	Oakland	CA	US	
Shelton, David L.	San Francisco	CA	US	
Stewart, Timothy A.	Orinda	CA	US	
Tumas, Daniel	Half Moon Bay	CA	US	
Williams, P. Mickey	Hillsborough	CA	US	
Wood, William I.				

APPL-NO: 09/ 999832

DATE FILED: October 24, 2001

RELATED-US-APPL-DATA:

child 09999832 A1 20011024 parent continuation-of 09040220 19980317 US GRANTED  
parent-patent 6391311 US non-provisional-of-provisional 60062250 19971017 US  
non-provisional-of-provisional 60064249 19971103 US



non-provisional-of-provisional 60065311 19971113 US  
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 non-provisional-of-provisional 60082797 19980422 US  
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FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US98/21141	1998US-PCT/US98/21141	October 7, 1998
US	PCT/US98/24855	1998US-PCT/US98/24855	November 20, 1998
US	PCT/US99/00106	1999US-PCT/US99/00106	January 5, 1999

US	PCT/US99/05028	1999US-PCT/US99/05028	March 8, 1999
US	PCT/US99/05190	1999US-PCT/US99/05190	March 10, 1999
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/12252	1999US-PCT/US99/12252	June 2, 1999
US	PCT/US99/28313	1999US-PCT/US99/28313	November 30, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/28565	1999US-PCT/US99/28565	December 2, 1999
US	PCT/US99/30095	1999US-PCT/US99/30095	December 16, 1999
US	PCT/US99/31243	1999US-PCT/US99/31243	December 30, 1999
US	PCT/US99/31274	1999US-PCT/US99/31274	December 30, 1999
US	PCT/US00/00219	2000US-PCT/US00/00219	January 5, 2000
US	PCT/US00/00277	2000US-PCT/US00/00277	January 6, 2000
US	PCT/US00/00376	2000US-PCT/US00/00376	January 6, 2000
US	PCT/US00/03565	2000US-PCT/US00/03565	February 11, 2000
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US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
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US	PCT/US00/06319	2000US-PCT/US00/06319	March 10, 2000
US	PCT/US00/08439	2000US-PCT/US00/08439	March 30, 2000
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US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
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US	PCT/US01/09552	2001US-PCT/US01/09552	March 22, 2001
US	PCT/US01/17092	2001US-PCT/US01/17092	May 25, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 435/7.1,435/183 ,435/320.1 ,435/325 ,435/69.1 ,530/350  
,530/388.1 ,536/23.2

#### ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20020192706 A1

Summary of Invention Paragraph - BSTX:

[0120] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver carboxylesterases have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a carboxylesterase in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the CPT-11 cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver carboxylesterase inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20020177553

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020177553 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: November 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ashkenazi, Avi J.	San Mateo	CA	US	
Baker, Kevin P.	Darnestown	MD	US	
Botstein, David	Belmont	CA	US	
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan L.	San Rafael	CA	US	
Ferrara, Napoleone	San Francisco	CA	US	
Filvaroff, Ellen	San Francisco	CA	US	
Fong, Sherman	Alameda	CA	US	
Gao, Wei-Qiang	Palo Alto	CA	US	
Gerber, Hanspeter	San Francisco	CA	US	
Gerritsen, Mary E.	San Mateo	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Burlingame	CA	US	
Grimaldi, J.	San Francisco	CA	US	
Christopher	Belmont	CA	US	
Gurney, Austin L.	San Francisco	CA	US	
Hillan, Kenneth J.	Lafayette	CA	US	
Kljavin, Ivar J.	San Francisco	CA	US	
Kuo, Sophia S.	Hillsborough	CA	US	
Napier, Mary A.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Paoni, Nicholas F.	San Francisco	CA	US	
Roy, Margaret Ann	Oakland	CA	US	
Shelton, David L.	San Francisco	CA	US	
Stewart, Timothy A.	Orinda	CA	US	
Tumas, Daniel	Half Moon Bay	CA	US	
Williams, P. Mickey	Hillsborough	CA	US	
Wood, William I.				

APPL-NO: 09/ 978192

DATE FILED: October 15, 2001

RELATED-US-APPL-DATA:

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 non-provisional-of-provisional 60079923 19980330 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US98/21141	1998US-PCT/US98/21141	October 7, 1998
US	PCT/US98/24855	1998US-PCT/US98/24855	November 20, 1998

US	PCT/US99/00106	1999US-PCT/US99/00106	January 5, 1999
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US	PCT/US99/05190	1999US-PCT/US99/05190	March 10, 1999
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US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/28565	1999US-PCT/US99/28565	December 2, 1999
US	PCT/US99/30095	1999US-PCT/US99/30095	December 16, 1999
US	PCT/US99/31243	1999US-PCT/US99/31243	December 30, 1999
US	PCT/US99/31274	1999US-PCT/US99/31274	December 30, 1999
US	PCT/US00/00219	2000US-PCT/US00/00219	January 5, 2000
US	PCT/US00/00277	2000US-PCT/US00/00277	January 6, 2000
US	PCT/US00/00376	2000US-PCT/US00/00376	January 6, 2000
US	PCT/US00/03565	2000US-PCT/US00/03565	February 11, 2000
US	PCT/US00/04341	2000US-PCT/US00/04341	February 18, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/07532	2000US-PCT/US00/07532	March 21, 2000
US	PCT/US00/05004	2000US-PCT/US00/05004	February 24, 2000
US	PCT/US00/06319	2000US-PCT/US00/06319	March 10, 2000
US	PCT/US00/08439	2000US-PCT/US00/08439	March 30, 2000
US	PCT/US00/13705	2000US-PCT/US00/13705	May 17, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/14941	2000US-PCT/US00/14941	May 30, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/20710	2000US-PCT/US00/20710	July 28, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/09552	2001US-PCT/US01/09552	March 22, 2001
US	PCT/US01/17092	2001US-PCT/US01/17092	May 25, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 514/12,435/183 ,435/320.1 ,435/325 ,435/6 ,435/69.1 ,435/7.1 ,530/350 ,530/388.1 ,536/23.2

#### ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20020177553 A1

Detail Description Paragraph - DETX:

[0119] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver carboxylesterases have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a carboxylesterase in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the CPT-11 cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver carboxylesterase inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20020169284

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020169284 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: November 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ashkenazi, Avi	San Mateo	CA	US	
Baker, Kevin P.	Darkestown	MD	US	
Botstein, David	Belmont	CA	US	
Desnoyers, Luc	San Francisco	CA	US	
Eaton, Dan	San Rafael	CA	US	
Ferrara, Napoleone	San Francisco	CA	US	
Filvaroff, Ellen	San Francisco	CA	US	
Fong, Sherman	Alameda	CA	US	
Gao, Wei-Qiang	Foster City	CA	US	
Gerber, Hanspeter	San Francisco	CA	US	
Gerritsen, Mary E.	San Mateo	CA	US	
Goddard, Audrey	San Francisco	CA	US	
Godowski, Paul J.	Burlingame	CA	US	
Grimaldi, J.	San Francisco	CA	US	
Christerpher	Belmont	CA	US	
Gurney, Austin L.	San Francisco	CA	US	
Hillan, Kenneth J.	Lafayette	CA	US	
Klavin, Ivar J.	San Francisco	CA	US	
Kuo, Sophia S.	Hillsborough	CA	US	
Napier, Mary A.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Paoni, Nicholas F.	San Francisco	CA	US	
Roy, Margaret Ann	Oakland	CA	US	
Shelton, David L.	San Francisco	CA	US	
Stewart, Timothy A.	Orinda	CA	US	
Tumas, Daniel	Half Moon Bay	CA	US	
Williams, P. Mickey	Hillsborough	CA	US	
Wood, William I.				

APPL-NO: 09/ 978697

DATE FILED: October 16, 2001

RELATED-US-APPL-DATA:

child 09978697 A1 20011016 parent continuation-of 09040220 19980317 US PENDING  
child 09978697 A1 20011016 parent continuation-of 09105413 19980626 US PENDING  
child 09978697 A1 20011016 parent continuation-of 09168978 19981007 US PENDING



child 09978697 A1 20011016 parent continuation-of 09184216 19981102 US  
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FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US98/21141	1998US-PCT/US98/21141	October 7, 1998
US	PCT/US98/24855	1998US-PCT/US98/24855	November 20, 1998

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US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/28565	1999US-PCT/US99/28565	December 2, 1999
US	PCT/US99/30095	1999US-PCT/US99/30095	December 16, 1999
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US	PCT/US00/00277	2000US-PCT/US00/00277	January 6, 2000
US	PCT/US00/00376	2000US-PCT/US00/00376	January 6, 2000
US	PCT/US00/03565	2000US-PCT/US00/03565	February 11, 2000
US	PCT/US00/04341	2000US-PCT/US00/04341	February 18, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/07532	2000US-PCT/US00/07532	March 21, 2000
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US	PCT/US00/08439	2000US-PCT/US00/08439	March 30, 2000
US	PCT/US00/13705	2000US-PCT/US00/13705	May 17, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/14941	2000US-PCT/US00/14941	May 30, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/20710	2000US-PCT/US00/20710	July 28, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/09552	2001US-PCT/US01/09552	March 22, 2001
US	PCT/US01/17092	2001US-PCT/US01/17092	May 25, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 530/350,435/183 ,435/320.1 ,435/325 ,435/69.1 ,536/23.1

#### ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20020169284 A1

Summary of Invention Paragraph - BSTX:

[0121] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver carboxylesterases have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a carboxylesterase in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the CPT-11 cancer prodrug 8.1-fold. Cancer Res. (1998) 58(I):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver carboxylesterase inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20020156006

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020156006 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: October 24, 2002

INVENTOR-INFORMATION:

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Pan, James	Belmont	CA	US	
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Tumas, Daniel	Half Moon Bay	CA	US	
Williams, P. Mickey	Hillsborough	CA	US	
Wood, William I.				

APPL-NO: 09/ 978295

DATE FILED: October 15, 2001

RELATED-US-APPL-DATA:

child 09978295 A1 20011015 parent continuation-of 09040220 19980317 US PENDING  
child 09978295 A1 20011015 parent continuation-of 09105413 19980626 US PENDING  
child 09978295 A1 20011015 parent continuation-of 09168978 19981007 US PENDING

child 09978295 A1 20011015 parent continuation-of 09184216 19981102 US  
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 US PENDING child 09978295 A1 20011015 parent continuation-of 09202054 19981207  
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 09284291 19990412 US ABANDONED child 09978295 A1 20011015 parent  
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 non-provisional-of-provisional 60079786 19980327 US  
 non-provisional-of-provisional 60079920 19980330 US  
 non-provisional-of-provisional 60079923 19980330 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US98/21141	1998US-PCT/US98/21141	October 7, 1998
US	PCT/US98/24855	1998US-PCT/US98/24855	November 20, 1998

US	PCT/US99/00106	1999US-PCT/US99/00106	January 5, 1999
US	PCT/US99/05028	1999US-PCT/US99/05028	March 8, 1999
US	PCT/US99/05190	1999US-PCT/US99/05190	March 10, 1999
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/12252	1999US-PCT/US99/12252	June 2, 1999
US	PCT/US99/28313	1999US-PCT/US99/28313	November 30, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/28565	1999US-PCT/US99/28565	December 2, 1999
US	PCT/US99/30095	1999US-PCT/US99/30095	December 16, 1999
US	PCT/US99/31243	1999US-PCT/US99/31243	December 30, 1999
US	PCT/US99/31274	1999US-PCT/US99/31274	December 30, 1999
US	PCT/US00/00219	2000US-PCT/US00/00219	January 5, 2000
US	PCT/US00/00277	2000US-PCT/US00/00277	January 6, 2000
US	PCT/US00/00376	2000US-PCT/US00/00376	January 6, 2000
US	PCT/US00/03565	2000US-PCT/US00/03565	February 11, 2000
US	PCT/US00/04341	2000US-PCT/US00/04341	February 18, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/07532	2000US-PCT/US00/07532	March 21, 2000
US	PCT/US00/05004	2000US-PCT/US00/05004	February 24, 2000
US	PCT/US00/06319	2000US-PCT/US00/06319	March 10, 2000
US	PCT/US00/08439	2000US-PCT/US00/08439	March 30, 2000
US	PCT/US00/13705	2000US-PCT/US00/13705	May 17, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/14941	2000US-PCT/US00/14941	May 30, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/20710	2000US-PCT/US00/20710	June 28, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/09552	2001US-PCT/US01/09552	March 22, 2001
US	PCT/US01/17092	2001US-PCT/US01/17092	March 25, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 514/12,435/183 ,435/320.1 ,435/325 ,435/69.1 ,435/7.1 ,530/350 ,530/388.1 ,536/23.2

#### ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20020156006 A1

Summary of Invention Paragraph - BSTX:

[0121] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver carboxylesterases have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a carboxylesterase in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the CPT-11 cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver carboxylesterase inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

PGPUB-DOCUMENT-NUMBER: 20020147208

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020147208 A1

TITLE: Compositions and dosage forms for gastric delivery of antineoplastic agents and methods of treatment that use them to inhibit cancer cell proliferation

PUBLICATION-DATE: October 10, 2002

INVENTOR-INFORMATION:

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Rosenberger, Vered	Jerusalem		IL	
Lerner, E. Itzhak	Petach Tikva		IL	

APPL-NO: 10/ 026573

DATE FILED: December 20, 2001

RELATED-US-APPL-DATA:

child 10026573 A1 20011220 parent continuation-in-part-of 09887204 20010622 US  
PENDING non-provisional-of-provisional 60213832 20000623 US  
non-provisional-of-provisional 60273428 20010305 US

US-CL-CURRENT: 514/283

ABSTRACT:

The present invention provides oral dosage forms and compositions for administering antineoplastic agents, such as irinotecan, etoposide, paclitaxel, doxorubicin and vincristine, whose oral effectiveness is limited by pre-systemic and systemic deactivation in the GI tract. Gelling of the gastric retention vehicle composition, and in the case of solid forms concomitant expansion of the composition, retains the antineoplastic drug in the patient's stomach, minimizing pre-systemic and/or systemic deactivation of the drug.

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of provisional application Serial No. 60/273,428, filed Mar. 5, 2001 and is a continuation-in-part of U.S. patent application Serial No. 09/887,204, filed Jun. 22, 2001, which in turn claims priority of provisional application Serial No. 60/213,832, filed Jun. 23, 2000, all of which are incorporated herein by reference.

----- KWIC -----



Pre-Grant Publication Document Identifier - DID:

US 20020147208 A1

Summary of Invention Paragraph - BSTX:

[0010] Irinotecan is a metabolic precursor of 7-ethyl-10-hydroxycamptothecin. The metabolite is also known by the designation SN-38. SN-38 has been found to be approximately a thousand times more potent an inhibitor of topoisomerase I than irinotecan. SN-38 is formed by hydrolysis of the ester side chain of irinotecan by carboxylesterases in the body. Steward, C. F. et. al., "Disposition of Irinotecan and Sn-38 Following Oral and Intravenous Irinotecan Dosing in Mice" Cancer Chemother. Pharmacol. (1997), 40, 259-265; Kuhn, J. G., "Pharmacology of Irinotecan" Oncology (1998), 12 supp. 6, 39-42. While the main site of metabolism of irinotecan to the more active SN-38 is the liver, there is considerable activity of carboxylesterase in the upper GI tract. Kuhn, J. G. Ibid; Takamura, K. et. al., "Involvement of Beta-glucuronidase in Intestinal Microflora in the Intestinal Toxicity of the Anti Tumor Camptothecin Derivative Irinotecan Hydrochloride (CPT-11) in Rats" Cancer Res. (1996), 56, 3752-3757.

PGPUB-DOCUMENT-NUMBER: 20020114808

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020114808 A1

TITLE: Methods and compositions for increasing the target-specific toxicity of a chemotherapy drug

PUBLICATION-DATE: August 22, 2002

INVENTOR-INFORMATION:

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APPL-NO: 10/ 066782

DATE FILED: February 6, 2002

RELATED-US-APPL-DATA:

child 10066782 A1 20020206 parent division-of 09399221 19990917 US GRANTED  
parent-patent 6361774 US non-provisional-of-provisional 60101039 19980918 US

US-CL-CURRENT: 424/146.1,514/23 ,514/566

ABSTRACT:

A method for increasing the target-specific toxicity of a drug is effected by pretargeting an enzyme to a mammalian target site, and then administering a cytotoxic drug known to act at the target site, or a prodrug form thereof which is converted to the drug in situ, which drug is also detoxified to form an intermediate of lower toxicity using said mammal's ordinary metabolic processes, whereby the detoxified intermediate is reconverted to its more toxic form by the pretargeted enzyme and thus has enhanced cytotoxicity at the target site. Further enhancement can be achieved by pretargeting an enzyme which converts the prodrug to the cytotoxic drug at the target site. Kits for use with the method also are provided. The method and kits permit lower doses of cytotoxic agents, maximize target site activity and minimize systemic side effects.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20020114808 A1

#### Summary of Invention Paragraph - BSTX:

[0044] The prodrug **CPT-11** (irinotecan) is converted in vivo by carboxylesterase to the active metabolite SN-38. One application of the invention, therefore, is to use a bsMAb targeted against a tumor and a hapten (e.g. DTPA) followed by injection of a DTPA-carboxyl esterase conjugate. Once a suitable tumor-to-background localization ratio has been achieved, the CPT11 is given and the tumor-localized carboxylesterase serves to convert **CPT-11** to SN-38 at the tumor. Since the active SN-38 is poorly soluble it will remain in the vicinity of the tumor and, since it is being generated in the vicinity of the tumor, it is able to exert an effect on adjacent tumor cells that are negative for the antigen being targeted. These are further advantages of the method. Modified forms of carboxylesterase that can be expressed by cells have been described (Potter et al., Cancer Res., 58:2646-2651 and 3627-3632, 1998), and such designed enzymes are within the scope of the invention.

#### Summary of Invention Paragraph - BSTX:

[0045] Etoposide is a widely used cancer drug that is detoxified to a major extent by formation of its glucuronide (Hande et al., Cancer Res., 48: 1829-1834, 1988), and could therefore be used within the scope of the invention. Glucuronide conjugates can be prepared from cytotoxic drugs and be injected as therapeutics for tumors pre-targeted with MAb-glucuronidase conjugates (Wang et al., Cancer Res., 52:4484-4491, 1992). Accordingly, such conjugates can also be used with the bsMAb approach described here. Designed prodrugs based on derivatives of daunomycin and doxorubicin have been described (Bakina et al., J. Med. Chem., 40:4013-4018, 1997) for use with carboxylesterases and glucuronidases, and these can be used within the scope of the invention. Some other combinations of prodrugs and enzymes that can be used within the invention are listed. Glucuronide prodrugs of hydroxy derivatives of phenol mustards (Schmidt et al., Bioorg. Med. Chem. Lett., 7:1071-1076, 1997) and beta-glucuronidase. Phenol mustards or **CPT-11** and carboxypeptidase. Methotrexate-substituted alpha-amino acids and carboxypeptidase A. Beta-lactamase and penicillin or cephalosporin conjugates of drugs such as 6-mercaptopurine and doxorubicin. Alkaline phosphatase and etoposide phosphate.

#### Summary of Invention Paragraph - BSTX:

[0047] The clearance characteristics of drugs can be modulated by certain agents, and the use of such modulating agents within the invention form an additional embodiment. For example, **CPT-11** clearance properties have been shown to be modulated by administration of cyclosporin A with the latter reducing the level of biliary clearance of SN-38 and its glucuronide (SN-38G) (Gupta et al., Cancer Res. 56:1309-1314, 1996). In turn, this raised the plasma concentration of SN-38G. This would allow for greater contact with tumor-targeted DTPAglucuronidase in the present invention. Gupta et al. also showed a similar effect when using phenobarbital (Cancer Chemother. Pharmacol., 39:440-444, 1997), and thus, this agent could also be given along with **CPT-11** after pre-targeting DTPA-glucuronidase. In the latter article they

also showed that pretreatment of rats with valproic acid (an inhibitor of uridine diphosphate glucuronosyl transferase (UDP-GT) inhibited the formation of SN-38G leading to a 270% AUC for SN-38 from subsequently-administered **CPT-11**. Thus, use of valproic acid, within the scope of the invention when pre-targeting DTPA-carboxylesterase to tumor, will also lead to higher levels of SN-38 at the target.

PGPUB-DOCUMENT-NUMBER: 20020090681

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020090681 A1

TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same

PUBLICATION-DATE: July 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
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Godowski, Paul J.	Hillsborough	CA	US	
Gurney, Austin L.	Belmont	CA	US	
Pan, James	Belmont	CA	US	
Stewart, Timothy A.	San Francisco	CA	US	
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Wood, William I.	Hillsborough	CA	US	
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APPL-NO: 10/ 036342

DATE FILED: December 26, 2001

RELATED-US-APPL-DATA:

child 10036342 A1 20011226 parent continuation-of 09931836 20010816 US PENDING  
non-provisional-of-provisional 60085579 19980515 US  
non-provisional-of-provisional 60112514 19981215 US  
non-provisional-of-provisional 60113300 19981222 US  
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 non-provisional-of-provisional 60146970 19990803 US  
 non-provisional-of-provisional 60162506 19991029 US

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
US	PCT/US99/10733	1999US-PCT/US99/10733	May 14, 1999
US	PCT/US99/28551	1999US-PCT/US99/28551	December 2, 1999
US	PCT/US99/30720	1999US-PCT/US99/30720	December 22, 1999
US	PCT/US00/05601	2000US-PCT/US00/05601	March 1, 2000
US	PCT/US00/05841	2000US-PCT/US00/05841	March 2, 2000
US	PCT/US00/14042	2000US-PCT/US00/14042	May 22, 2000
US	PCT/US00/15264	2000US-PCT/US00/15264	June 2, 2000
US	PCT/US00/23522	2000US-PCT/US00/23522	August 23, 2000
US	PCT/US00/23328	2000US-PCT/US00/23328	August 24, 2000
US	PCT/US00/32678	2000US-PCT/US00/32678	December 1, 2000
US	PCT/US00/34956	2000US-PCT/US00/34956	December 20, 2000
US	PCT/US01/06520	2001US-PCT/US01/06520	February 28, 2001
US	PCT/US01/17800	2001US-PCT/US01/17800	June 1, 2001
US	PCT/US01/19692	2001US-PCT/US01/19692	June 20, 2001
US	PCT/US01/21066	2001US-PCT/US01/21066	June 29, 2001
US	PCT/US01/21735	2001US-PCT/US01/21735	July 9, 2001

US-CL-CURRENT: 435/69.1,435/183 ,435/320.1 ,435/325 ,530/350 ,536/23.2

ABSTRACT:

The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

----- KWIC -----

Pre-Grant Publication Document Identifier - DID:

US 20020090681 A1

Summary of Invention Paragraph - BSTX:

[0020] Enzymatic proteins play important roles in the chemical reactions involved in the digestion of foods, the biosynthesis of macromolecules, the

controlled release and utilization of chemical energy, and other processes necessary to sustain life. Enzymes have also been shown to play important roles in combating various diseases and disorders. For example, liver **carboxylesterases** have been reported to assist in sensitizing human tumor cells to the cancer prodrugs. Danks et al., report that stable expression of the cDNA encoding a **carboxylesterase** in Rh30 human rhabdomyosarcoma cells increased the sensitivity of the cells to the **CPT-11** cancer prodrug 8.1-fold. Cancer Res. (1998) 58(1):20-22. The authors propose that this prodrug/enzyme combination could be exploited therapeutically in a manner analogous to approaches currently under investigation with the combinations of ganciclovir/herpes simplex virus thymidine kinase and 5-fluorocytosine/cytosine deaminase. van Pelt et al. demonstrated that a 55 kD human liver **carboxylesterase** inhibits the invasion of Plasmodium falciparum malaria sporozoites into primary human hepatocytes in culture. J Hepatol (1997) 27(4):688-698.

US-PAT-NO: 6511967

DOCUMENT-IDENTIFIER: US 6511967 B1

TITLE: Use of an internalizing transferrin receptor to image transgene expression

DATE-ISSUED: January 28, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Weissleder; Ralph	Charlestown	MA	N/A	N/A
Basilion; James P.	Brookline	MA	N/A	N/A
Chiocca; Ennio Antonio	Wakefield	MA	N/A	N/A

APPL-NO: 09/ 552993

DATE FILED: April 21, 2000

PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATION This application claims benefit from U.S. Provisional Patent Application Ser. No. 60/130,794, file on Apr. 23, 1999, which is incorporated herein by reference in its entirety.

US-CL-CURRENT: 514/44; 435/6 ; 536/23.1 ; 536/23.4

ABSTRACT:

Cells can be imaged, e.g., in vivo, in an animal or human subject by introducing into the cells a nucleic acid encoding an internalizing receptor, administering to the animal or human subject a reporter complex including one or more receptor-specific reporter moieties linked to one or more reporter groups, such as magnetic particles, and detecting the reporter complex, e.g., using magnetic resonance imaging, and thus detecting the cells. If a specific gene is expressed in a constant, known ratio compared to expression of the receptor, the expression of that gene can be monitored by detecting the reporter complex, and thus, concomitantly, expression of the internalizing receptor and the specific gene.

27 Claims, 19 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

----- KWIC -----



US PATENT NO. - PN:

6511967

Detailed Description Text - DETX:

Alternative systems such as p450/reductase (CPA) and/or carboxylesterase (CPT-11) and/or cytosine deaminase (CD) can also be used.

US-PAT-NO: 6485514

DOCUMENT-IDENTIFIER: US 6485514 B1

TITLE: Local delivery of therapeutic agents

DATE-ISSUED: November 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wrenn, Jr.; Simeon M.	Danville	CA	N/A	N/A

APPL-NO: 08/ 989281

DATE FILED: December 12, 1997

US-CL-CURRENT: 623/1.42; 128/898 ; 604/104 ; 604/265 ; 604/500

ABSTRACT:

Disclosed are implants, stents, catheters, methods and kits for the local delivery of therapeutic agents that are preferentially cytotoxic or cytostatic with regards to proliferating cells to sites where proliferative cells are present.

5 Claims, 0 Drawing figures

Exemplary Claim Number: 1

----- KWIC -----

US PATENT NO. - PN:

6485514

Brief Summary Text - BSTX:

In addition to taxol, other forms such as its physiologically tolerated salts, and derivatives, analogs, mixtures and conjugates thereof may be used in the practice of this invention. Examples of derivatives or analogs of taxol are 2' and 7 positions substituted taxols disclosed by A. E. Mathew, et al. Synthesis and evaluation of some water-soluble prodrugs and derivatives of taxol with antitumor activity, J. Med. Chem. 35:145-51 (1992). An example of taxol conjugates useful in the practice of this invention are disclosed in R. B. Greenwald, et al., Drug Delivery Systems: water soluble taxol 2'poly(ethylene glycol) ester prodrugs-design and in vivo effectiveness, J. Med. Chem. 39:424-31 (1996). Examples of derivatives or prodrugs of 2' substituted taxol

and camptothecin are disclosed in Peter D. Senter et al., The Role of Rat Serum Carboxylesterase in the Activation of Paclitaxel and Camptothecin Prodrugs, Cancer Research 56:1471-75 (1996). Additional examples of taxol prodrugs or derivatives can be found in G. I. Georg, et al., Synthesis of biologically active taxol analogs with modified phenylisoserine side chains, J. Med. Chem 35:4230-37 (1992); S. W. Mamber, et al., Tubulin polymerization by paclitaxel (taxol) phosphate prodrugs after metabolic activation with alkaline phosphatase, J. Pharmacol Exp. Ther. 274:877-83 (1995); S. Grover et al., Differential effects of paclitaxel (Taxol) modified at positions C-2, C-7, and C-3' tubulin polymerization and polymer stabilization: identification of a hyperactive paclitaxel derivative, Biochemistry 34:3927-34 (1995).

Other Reference Publication - OREF:

Senter, Peter D. et al., "The Role of Rat Serum Carboxylesterase in the Activation of Paclitaxel and Camptothecin Prodrugs", Cancer Research, 1471-1474 (1996).

US-PAT-NO: 6407239

DOCUMENT-IDENTIFIER: US 6407239 B1

TITLE: Aromatic esters of camptothecins and methods to treat cancers

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cao; Zhisong	Friendswood	TX	N/A	N/A
Giovanella; Beppino C.	Houston	TX	N/A	N/A

APPL-NO: 09/ 747450

DATE FILED: December 22, 2000

PARENT-CASE:

This application is a continuation of prior U.S. patent application Ser. No. 09/365,633 filed Aug. 3, 1999, now U.S. Pat. No. 6,228,855.

US-CL-CURRENT: 546/48; 546/51

ABSTRACT:

Aromatic camptothecin ester compounds having the formula: ##STR1##

are described as well as formulations containing the compounds. Methods of treating cancer and/or tumors are also disclosed.

39 Claims, 0 Drawing figures

Exemplary Claim Number: 1

----- KWIC -----

US PATENT NO. - PN:

6407239

Brief Summary Text - BSTX:

Conversion of the prodrugs to camptothecins is mediated by a group of enzymes called esterases. Mammalian carboxylesterases represent a multigene family and are present in a wide variety of organs and tissues of many mammalian species (Sato, in reviews in Biochemical Toxicology, 8:155-81, New York: Elsevier,

1987; Heymann, in *Enzymatic Basis of Detoxication*, 2:291-323, New York: Academic, 1980, and in *Metabolic Basis of Detoxication*, 1:229-45, New York: Academic, 1982). In general, the highest hydrolase activity occurs in the liver. Carboxylesterase activity is present in many tissues in addition to liver. More information about distribution of carboxylesterases in tissues can be found in a review article written by Satoh et al. (*Annu. Rev. Pharmacol. Toxicol.* 38, 257, 1998). Carboxylesterases are known to be responsible for the hydrolysis of many exogenous compounds, the consequences of which include both activation of prodrugs and deactivation of drugs. CPT-11, a semisynthetic camptothecin derivative and now commercially available for cancer treatment, is a prodrug of SN-38. This compound is converted to SN-38 by carboxylesterases (Danks et al., *Cancer Res.* 58, 20, 1998; Potter et al., *Cancer Res.* 58, 2646, 1998; Tsuji et al., *J. Pharmacobio-Dyn.* 14, 341, 1991). The prodrugs disclosed by the present invention are rapidly distributed throughout the body within a short period of time after delivery and are then converted to active camptothecin compounds by carboxylesterases specifically in tissues.

US-PAT-NO: 6407117

DOCUMENT-IDENTIFIER: US 6407117 B1

TITLE: Method of administering camptothecin compounds for the treatment of cancer with reduced side effects

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bouscarel; Bernard	Arlington	VA	N/A	N/A
Kobayashi; Kumihike	Urawa	N/A	N/A	JP

APPL-NO: 09/ 534084

DATE FILED: March 23, 2000

PARENT-CASE:

This application is a continuation of PCT/US99/13906 filed Jun. 18, 1999 which claims the benefit of provisional application 60/089,781 filed Jun. 18, 1998.

US-CL-CURRENT: 514/283; 424/717

ABSTRACT:

Methods of administering camptothecin compounds such as irinotecan hydrochloride to reduce a diarrhea side effect and methods of treating cancer and AIDs with camptothecin compounds including administering the camptothecin compounds while maintaining the intestinal lumen and the bile at an alkaline pH.

6 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 7

----- KWIC -----

US PATENT NO. - PN:

6407117

Brief Summary Text - BSTX:

From several reports, it is considered that major metabolic pathways in human are as follows; **CPT-11** is hydrolyzed by carboxylesterase of mainly liver origin to the active metabolite, 7-ethyl-10-hydroxy-**camptothecin** (SN-38). Some of SN-38 undergoes subsequent conjugation by the hepatic enzyme, UDP-glucuronyltransferase, to SN-38 .beta.-glucuronide (SN-38-Glu), and is excreted into bile along with the other components, **CPT-11** and SN-38 (13, 14). The three compounds are believed to be reabsorbed by intestinal cells to enter the enterohepatic circulation. Recently, it has been found that hepatic cytochrome P-450 3A enzymes metabolize **CPT-11** to 7-ethyl-10-[4-N-(5-aminopentanoic acid) -1-piperidino] carbonyloxycamptothecin, which has 500-fold weaker antitumor activity than SN-38 (Rivory et al., 1996b; Haaz et al., 1997). **CPT-11**, SN-38 and SN38-Glu have an .alpha.-hydroxy-3-lactone ring, which undergoes reversible hydrolysis at a rate which is mainly pH-dependent (Fassberg et al., 1992). At physiological pH and higher, the lactone form is unstable and the equilibrium favors hydrolysis to open the lactone ring and yield the carboxylate form. Under acidic conditions, lactone-carboxylate interconversion is shifted toward the lactone form. **CPT-11**, SN-38 and SN38-Glu are excreted into bile and along with it are released into the small intestinal lumen (Atsumi et al., 1991; Lokiec et al., 1995; Chu et al., 1997a, b). Furthermore, although minor (Atsumi et al 1995), an additional pathway involves direct transport of **CPT-11** and its metabolites from serum to lumen across the intestinal epithelial cells. Once in the intestine, SN38-Glu can be deconjugated in the cecum and colon to SN-38 by bacterial .beta.-glucuronidase (Takatsuna et al., 1996). **CPT-11**, SN-38 and SN38-Glu are believed to be reabsorbed to a certain extent by intestinal cells and to enter the enterohepatic circulation.

Detailed Description Text - DETX:

(13) Rivory L P, Bowles M R, Robert J. Pond S. M. Conversion of irinotecan (**CPT-11**) to its active metabolite, 7-ethyl-10-hydroxycamptothecin (SN-38), by human liver carboxylesterase. Biochemical Pharmacol 1996;52:1103-11.

Detailed Description Text - DETX:

(14) Senter P D, Marquardt H, Thomas B A, Hammock B D, Frank I S, Svensson H P. The role of rat serum carboxylesterase in the activation of paclitaxel and **camptothecin** prodrugs. Cancer Research 1996;56:1471-4.

Detailed Description Text - DETX:

RIVORY, L. P., BOWLES, M. R., ROBERT, J., POND, S. M., Conversion of irinotecan (**CPT-11**) to its active metabolite, 7-ethyl-10-hydroxycamptothecin (SN-38), by human liver carboxylesterase. Biochemical Pharmacol., 52, 1103-1111 (1996a).

US-PAT-NO: **6403604**

DOCUMENT-IDENTIFIER: US 6403604 B1

TITLE: Nitrogen-based camptothecin derivatives

DATE-ISSUED: June 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yang; Li-Xi	San Francisco	CA	N/A	N/A
Pan; Xiandao	San Francisco	CA	N/A	N/A
Wang; Huijuan	San Francisco	CA	N/A	N/A

APPL-NO: 09/ 797765

DATE FILED: March 1, 2001

US-CL-CURRENT: 514/283; 546/48

ABSTRACT:

(20S) esters of camptothecin analogs are provided. The compounds are (20S) esters of an aminoalkanoic acid or an imidoalkanoic acid and camptothecin, which is optionally substituted at the 7, 9, 10, 11, and 12 positions of the camptothecin ring. The compounds are useful for treating cancer.

36 Claims, 0 Drawing figures

Exemplary Claim Number: 1

----- KWIC -----

US PATENT NO. - PN:

6403604

Other Reference Publication - OREF:

Takayama, Hiromitsu et al., "Synthesis of a New Class of **Camptothecin** Derivatives, the Long-Chain Fatty Acid Esters Of 10-Hydroxycamptothecin, as a Potent Prodrug Candidate, and their In Vitro Metabolic Conversion by **Carboxylesterases**," Bioorganic & Medicinal Chemistry Letters 8, 1998, pp. 415-418.



US-PAT-NO: **6395708**

DOCUMENT-IDENTIFIER: US 6395708 B1

TITLE: Method for preventing diarrhea

DATE-ISSUED: May 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Miller; Langdon L.	Lebanon	NJ	N/A	N/A
Rothermel; John David	Randolph	NJ	N/A	N/A
O'Dowd; Hugh Michael	Long Valley	NJ	N/A	N/A

APPL-NO: 09/ 648270

DATE FILED: August 25, 2000

PARENT-CASE:

This is a continuation divisional continuation-in-part of application Ser. No. 09/450,201 filed on Nov. 29, 1999, now U.S. Pat. No. 6,159,935 entitled Method for Preventing Diarrhea.

US-CL-CURRENT: 514/12; 514/283

ABSTRACT:

The present invention relates to a method for preventing irinotecan-induced or camptothecin-induced or camptothecin- analog-induced diarrhea by administering an effective amount of octreotide. In particular the invention concerns new methods, combination formulations and kits to prevent late diarrhea caused by irinotecan or camptothecin, or camptothecin-analog administration.

2 Claims, 0 Drawing figures

Exemplary Claim Number: 1

----- KWIC -----

US PATENT NO. - PN:

6395708

Brief Summary Text - BSTX:

Irinotecan is

(4S)-4,11-diethyl-4-hydroxy-9-[(4-piperidino-piperidino)carbonyloxy]-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)dione. Irinotecan hydrochloride is a pale yellow to yellow crystalline powder, with the empirical formula C<sub>33</sub>H<sub>38</sub>N<sub>4</sub>O<sub>6</sub>·HCl<sub>3</sub>H<sub>2</sub>O and a molecular weight of 677.19. Irinotecan hydrochloride was clinically investigated as **CPT-11**.

Irinotecan is a prodrug converted in vivo by plasma and tissue **carboxylesterases** to SN-38 (7-ethyl-10-hydroxy **camptothecin**), an active metabolite that is an inhibitor of the nuclear enzyme topoisomerase I. Irinotecan has shown activity against a variety of tumor types, and in particular, refractory colorectal tumors.